AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-18. (canceled)

19. (Currently amended) A filtration apparatus, comprising:

~~at least one~~ a shaftless, vaneless rotor, and

a rotor housing,

wherein:

the rotor is essentially spherical in shape,

the rotor comprises at least two recessed portions, wherein

the portions are shaped to enable the rotor to rotate by the application of fluid flow to the rotor;

the center of mass of the rotor is substantially at the centre of the volume of space occupied by the rotor; and

at least one of the recessed portions of the rotor is ~~adapted~~ configured to temporarily cup or collect the fluid.

20. (Previously presented) A filtration apparatus as claimed in claim 19, wherein the housing incorporates one or more fluid inlet ports and one or more fluid outlet ports.

21. (Previously presented) A filtration apparatus as claimed in claim 20, wherein the inlet port is configured to introduce the fluid into the interior of the housing in a direction eccentric in the transverse plane to the axis of the rotor.

22. (Previously presented) A filtration apparatus as claimed in claim 19, wherein the housing includes an inlet port and an outlet port arranged such that

(a) both ports are on the same side of the housing as one another; or

(b) each port is on one of opposite sides of the housing; or

(c) said ports are at a 90 degree angle to each other.

23. (Previously presented) A filtration apparatus as claimed in claim 19, wherein the fluid is selected from the group consisting of: a fuel; water; and a waste material.

24-25. (canceled)

26. (Previously presented) A filtration apparatus as claimed in claim 19, wherein the at least one recessed portion is a curved surface.

27. (Previously presented) A filtration apparatus as claimed in claim 19, wherein the rotor comprises:

two recessed portions, one on each side of the rotor;

an approximately cylindrical central portion between said two recessed portions, said central portion having an arcuate outer surface and being formed as a continuous band around the circumference of the rotor; and

two tip regions, one on either side of a recessed portion, remote from the central portion.

28. (Previously presented) A filtration apparatus as claimed in claim 19, wherein the rotor is adapted to rotate about a single axis of rotation orientated substantially through the centre of mass of the rotor.

29. (Previously presented) A filtration apparatus as claimed in claim 19, wherein the mass of the at least one recessed portion is balanced so as to place the centre of mass of the rotor at a point substantially in the centre of the volume of space occupied by the rotor.

30. (Previously presented) A filtration apparatus as claimed in claim 19, wherein the rotor is contained within the housing.

31. (Previously presented) A filtration apparatus as claimed in claim 19, wherein the rotor is covered by a protective coating.

32. (Previously presented) A filtration apparatus as claimed in claim 31, wherein the protective coating is selected from the group consisting of: flat black modified phenolic coatings; aluminium chromate ND; nickel plating; ceramic coatings; epoxy resins; magnesium; tantalum; and combinations thereof.

33. (Previously presented) A filtration apparatus as claimed in claim 30, wherein the housing includes at least one magnetic field generating element.

34. (Previously presented) A filtration apparatus as claimed in claim 19, wherein said rotor includes at least one magnet.

35. (Previously presented) A filtration apparatus as claimed in claim 34, wherein said magnet is offset from the centre of mass of the rotor.

36. (Previously presented) A filtration apparatus as claimed in claim 34, wherein the magnet is formed from materials including neodymium iron boron (NdFeB).

37. (Previously presented) A filtration apparatus as claimed in claim 30, further comprising an electrical conductor in close proximity to the exterior of the rotor housing.

38. (Previously presented) A filtration apparatus as claimed in claim 19, further comprising a magnet or magnets which are fixed within the rotor and which rotate as the rotor rotates;

wherein the rotating magnet or magnets induce an electrical current in an electrical conductor integral or in close proximity to the exterior of the rotor housing.

39. (Currently amended) A filtration apparatus ~~comprising at least two apparatuses~~ as claimed in claim 19, ~~wherein the apparatuses~~ further comprising a second shaftless, vaneless rotor which [[are]] is ~~arranged in a configuration selected from the group consisting of:~~ fluidly interconnected in at least one of series; [[in]] parallel; [[and]] or combinations thereof with the first said shaftless, vaneless rotor.

40. (New) A filtration apparatus as claimed in claim 19 wherein the rotor is free to rotate in radial or axial directions within the housing.